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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,873	08/02/2001	Yorishige Ishii	70801-56345	5108
21874	7590	12/17/2004	EXAMINER	
EDWARDS & ANGELL, LLP P.O. BOX 55874 BOSTON, MA 02205			DOAN, JENNIFER	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/920,873

Applicant(s)

ISHII ET AL.

Examiner

Jennifer Doan

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2001.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,4,5,7 and 8 is/are rejected.  
7) ☒ Claim(s) 2, 3 and 6 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 02 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 0801 and 0703.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

2. The prior art documents submitted by applicant in the Information Disclosure Statements filed on 08/02/2001 and 07/21/2003, have all been considered and made of record (note the attached copy of form PTO-1449).

***Drawings***

3. The drawings, filed on 08/02/2001, are accepted.

***Specification***

4. Applicants' cooperation is requested in correcting any errors of which applicants may become aware in the specification.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 4, 5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Kazuyoshi et al. (JP 11-237535) (translated by using Patent Abstracts of Japan website).

With respect to claim 1, Kazuyoshi et al. (figures 3 and 8) disclose an optical communication module comprising an emission member (2) for emitting a transmission light beam (paragraph [0017], line 5); and a connection member (10) for detachably connecting an optical fiber (11) for external communication with the emission member (2), the connection member (10) including a tubular accommodation part (see figure 3) for coaxially receiving and fixing an end of the optical fiber to be connected (see figure 3), wherein the emission member (2) and the connection member (10) are arranged, such that the transmission light beam intersects with an optical axis of the optical fiber (11) at a predetermined angle ( $\theta$ ) to enter an end face (11b) of the optical fiber (11) when the optical fiber (11) is connected and the transmission light beam collides with an inner wall of

Art Unit: 2874

the accommodation part when the optical fiber is detached (figure 8 and paragraph [0029], lines 6-8).

With respect to claim 4, Kazuyoshi et al. (figure 8) disclose an optical communication module, wherein the accommodation part includes on its inner wall a light absorbing member (10b) for absorbing the transmission light beam which collides therewith.

With respect to claim 5, Kazuyoshi et al. (figure 8) disclose an optical communication module, wherein the accommodation part includes on its inner wall a concave portion for reflecting and absorbing (10b) the transmission light beam which collides therewith.

With respect to claim 7, Kazuyoshi et al. (figure 3) disclose an optical communication module, wherein the end of the optical fiber (11) includes an end face (11b), which forms an acute angle ( $\theta$ ) with a plane orthogonal to the optical axis of the optical fiber (see figure 3).

【図3】

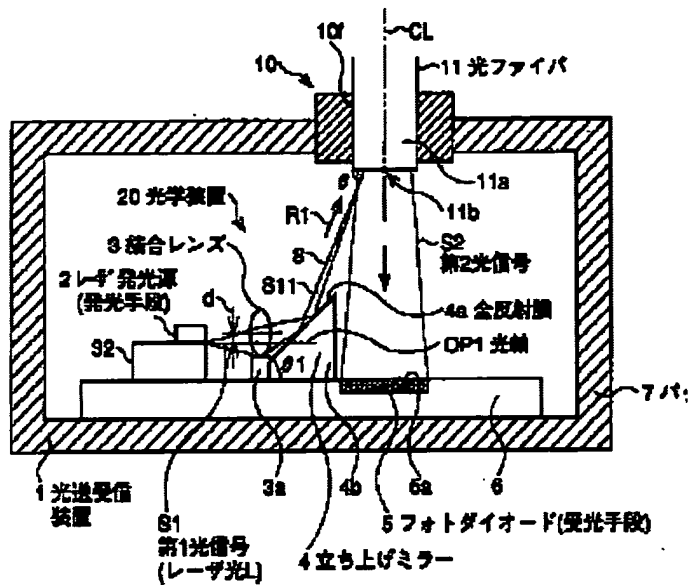


Figure 3

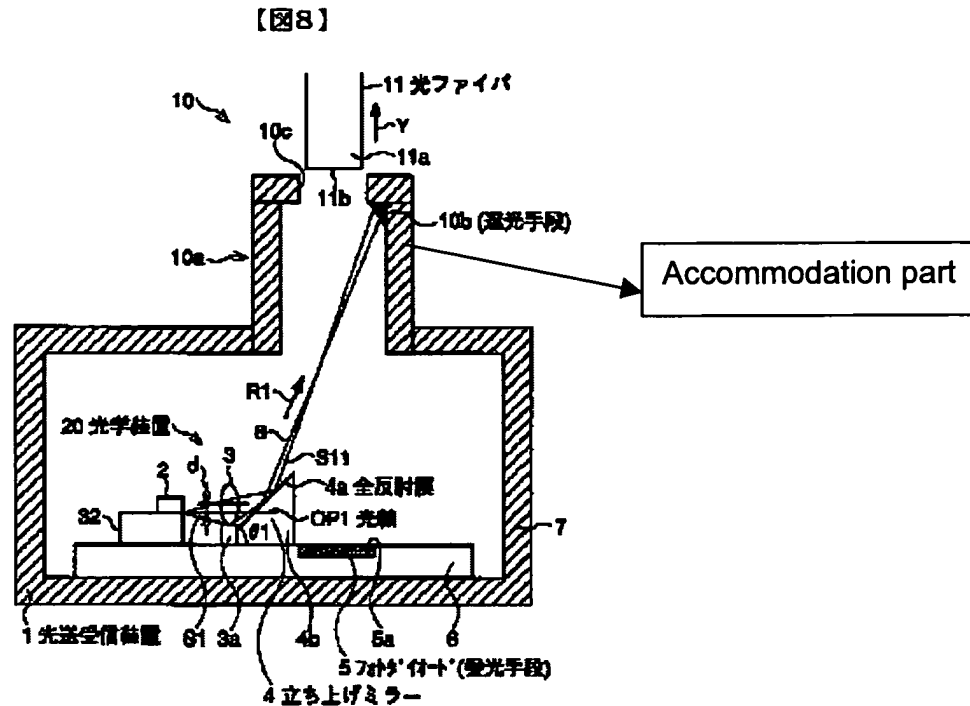


Figure 8

### Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2874

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuyoshi et al. (as cited above) in view of Mori et al. (U.S. Patent 5,485,316).

With respect to claim 8, Kazuyoshi et al. substantially disclose an optical communication module of the claimed invention.

Kazuyoshi et al. do not disclose the end of the optical fiber forms a convex lens.

However, Mori et al. (column 17, lines 1-12) disclose an end surface of an optical fiber having a convex lens. Such an element would easily manufacture to filter the light signal. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the end of the optical fiber of Kazuyoshi et al. to form a convex lens for the purpose of facilitating the manufacture of the optical communication module and filtering the light signal.



***Allowable Subject Matter***

10. Claims 2, 3 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fails to disclose or reasonably suggest the combination of the structure of an optical communication module comprising the inner wall of the accommodation part is designed to scatter the transmission light beam which collides therewith as recited in claim 2; wherein the accommodation part includes on its inner wall a light scattering member for scattering the transmission light beam which collides therewith as recited in claim 3; and further wherein the predetermined angle is smaller than  $\sin^{-1} (n_1^2 - n_2^2)^{1/2}$  where a core and a clad of the optical fiber have refractive indices of  $n_1$  and  $n_2$ , respectively as recited in claim 6.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ishikawa (U.S. Patent 4,575,181) discloses an optical fiber assembly with cladding light scattering means. And Ikushima et al. (U.S. Patent 4,199,222) disclose a laser to fiber coupler.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Doan whose telephone number is (571) 272-2346. The examiner can normally be reached on Monday to Thursday from 6:00 am to 3:30 pm, second Friday off.

Art Unit: 2874

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jennifer Doan

Patent examiner

November 30, 2004